

WHAT IS CLAIMED IS:

1. An information recording medium comprising
a guide groove along which information is recorded/
reproduced in an information recording region, the
5 information being formed as a recorded mark in both
of concave and convex portions of the guide groove,
management information including address information
being recorded by a wobble of the guide groove,

an offset of a reproducing signal of the recorded
10 mark generated by the wobble of the guide groove is
5.5% or less of an amplitude of the reproducing signal.

2. An information recording medium comprising
a guide groove along which information is recorded in
an information recording region, the information being
15 formed as a recorded mark in both of concave and convex
portions of the guide groove, management information
including address information being recorded by
a wobble of the guide groove,

wherein an increase/decrease of a width of one of
20 the concave and convex portions of the guide groove
generated by the wobble of the other portion is 3% or
less of one of an interval between the concave portions
and an interval between the convex portions.

3. An information recording medium comprising
25 a guide groove along which information is recorded in
an information recording region, the information being
formed as a recorded mark in both of concave and convex

portions of the guide groove, management information including address information being recorded by a wobble of the guide groove,

5 wherein an amplitude of the wobble of the guide groove is 3% or less of one of an interval between the concave portions and an interval between the convex portions.

4. An information recording medium comprising a guide groove along which information is recorded in
10 an information recording region, the information being formed as a recorded mark in both of concave and convex portions of the guide groove, management information including address information being recorded by a wobble of the guide groove,

15 wherein a signal amplitude by the wobble of the guide groove reproduced by an information recording/reproducing device which irradiates the information recording medium with a light beam to play the information recording medium is 9% or less of a maximum
20 amplitude of a signal produced at the time of when the light beam crosses the guide groove.

5. An information recording medium comprising a guide groove along which information is recorded in an information recording region, the information being
25 formed as a recorded mark in both of concave and convex portions of the guide groove, management information including address information being recorded by

a wobble of the guide groove,

wherein an amplitude of the wobble of the guide groove is 0.52% or more of one of an interval between the concave portions and an interval between the convex portions.

5

6. An information recording medium comprising a guide groove along which information is recorded in an information recording region, the information being formed as a recorded mark in both of concave and convex portions of the guide groove, management information including address information being recorded by a wobble of the guide groove,

10

wherein a signal amplitude by the wobble of the guide groove reproduced by an information recording/reproducing device which irradiates the information recording medium with a light beam to play the information recording medium is 1.6% or more of a maximum amplitude of a signal produced at the time of when the light beam crosses the guide groove.

15

7. An information recording method for recording management information by a wobble of a guide groove using a light beam into an information recording medium comprising: a guide groove along which information is recorded in an information recording region, in which user data is recorded/reproduced with respect to both concave and convex portions of the guide groove and in which management information is recorded by the wobble

20

25

of the guide groove, the method comprising:

focusing the light beam on the information recording medium to form the guide groove in the information recording medium;

5 oscillating the light beam to wobble the guide groove in a radial direction of the information recording medium;

judging whether the wobble is 0.52% or more and 3% or less of a guide groove interval; and

10 increasing an oscillating amount, when the wobble is 0.52% or less and decreasing the oscillating amount, when the wobble is 3% or more.

8. An information recording device to record management information by a wobble of a guide groove
15 into an information recording medium comprising:
a guide groove along which information is recorded in an information recording region, in which user data is recorded/reproduced with respect to both concave and convex portions of the guide groove and in which
20 management information is recorded by the wobble of the guide groove, the device comprising:

an optical system which focuses the light beam on the information recording medium to form the guide groove in the information recording medium;

25 an oscillating portion which oscillates the light beam to wobble the guide groove in a radial direction of the information recording medium; and

a controller which controls the oscillating portion so that the wobble is 0.52% or more and 3% or less of a guide groove interval.